

and its northern limit ranges in both hemispheres with the parallels of equal temperature laid down by Humboldt. The calcified condition of the genus corresponds also with the curves northward in the isothermal lines along the west coast of South America and those bending southward on the east side; the *Bulimi* having a colder aspect in Chili from the cold precipitated by the great Antarctic current of cold water which flows nearly to the Gallapagos Islands, than those of the opposite Brazilian coast which are affected by the equatorial current. In Patagonia the genus is suddenly arrested in a tropical condition by the recent geological changes that have taken place in that now barren and riverless country. The memoir proceeds to show that in the distant islands of the Pacific the *Bulimi* are curiously represented by other genera of terrestrial mollusks; whilst the species of islands approximating to continents, such as Trinidad, partake of the character of those of the main land.

The European species belong to the Caucasian type, which has its centre in Asia Minor, where the shell is mostly colourless, owing to the dry, juiceless, thorny character of the vegetation which affords little nutriment, and the *Bulimi* live mostly under blocks of wood or stone. This type reaches nearly to the south-eastern corner of Asia, where it is suddenly met at Birmah and in the Malacca peninsula by the richly-coloured Malayan type, which is so abundantly and beautifully represented in the islands of the Eastern Archipelago. The distribution of the genus among these islands is remarkably local. The *Bulimi* of North Africa partake of the character of those of Europe, whilst those inhabiting south of the equator belong to a totally different type.

The precise localities and circumstances of habitation of the various genera of Mollusca have as yet been too imperfectly noted by travellers to aid much in determining the laws relating to geographical distribution. The present summary of collected facts may prove suggestive of more careful observation, and, in the hands of those who are acquainted with the geological and physical history of the earth's surface, lead to important and interesting results.

The paper is illustrated with a map constructed with tints of shade, colours, and isothermal lines.

2. "On the influence of Physical Agents on the development of the Tadpole of the Triton and the Frog." By John Higginbottom, Esq. Communicated by Thomas Bell, Esq., Sec. R.S.

Mr. Higginbottom's experiments were made in different positions and degrees of temperature, many of them in a rock cellar 30 feet deep, where no solar light ever entered, and where the temperature varied only in the course of the year from 48° to 55° Fahr.

The results of numerous experiments showed that the development of the tadpole was principally hastened or retarded by temperature and the supply of food, and that, contrary to the opinion of many other observers, the presence or absence of light did not appear to exercise any perceptible influence upon their development.